

The Level of Service Barrier to Multimodal Transportation



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Forum to Discuss Level of Service Policies
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Oakland General Plan Policies

The City's General Plan policies promote multimodal transportation:

- *Objective T4 – Alternative Modes of Transportation:* Increase use of alternative modes of transportation (LUTE, p. 58).
- *Action 1C.1 – Bikeways to Transit Stations:* Prioritize bicycle access to major transit facilities from four directions, integrating bicycle access into the station design and connecting the station to the surrounding neighborhoods (BMP, p. 56).

Oakland Thresholds of Significance

...and established practice measures transportation impacts primarily in terms of automobile congestion:

- Cause the baseline level of service (LOS) to degrade to worse than LOS D (i.e., LOS E or F) at a signalized intersection that is located *outside* of the Downtown area;
- Cause the baseline LOS to degrade to worse than LOS E (i.e., LOS F) at a signalized intersection that is located *within* the Downtown area (BMP DEIR, p. 4.A-3).

Developing Multimodal Roadways

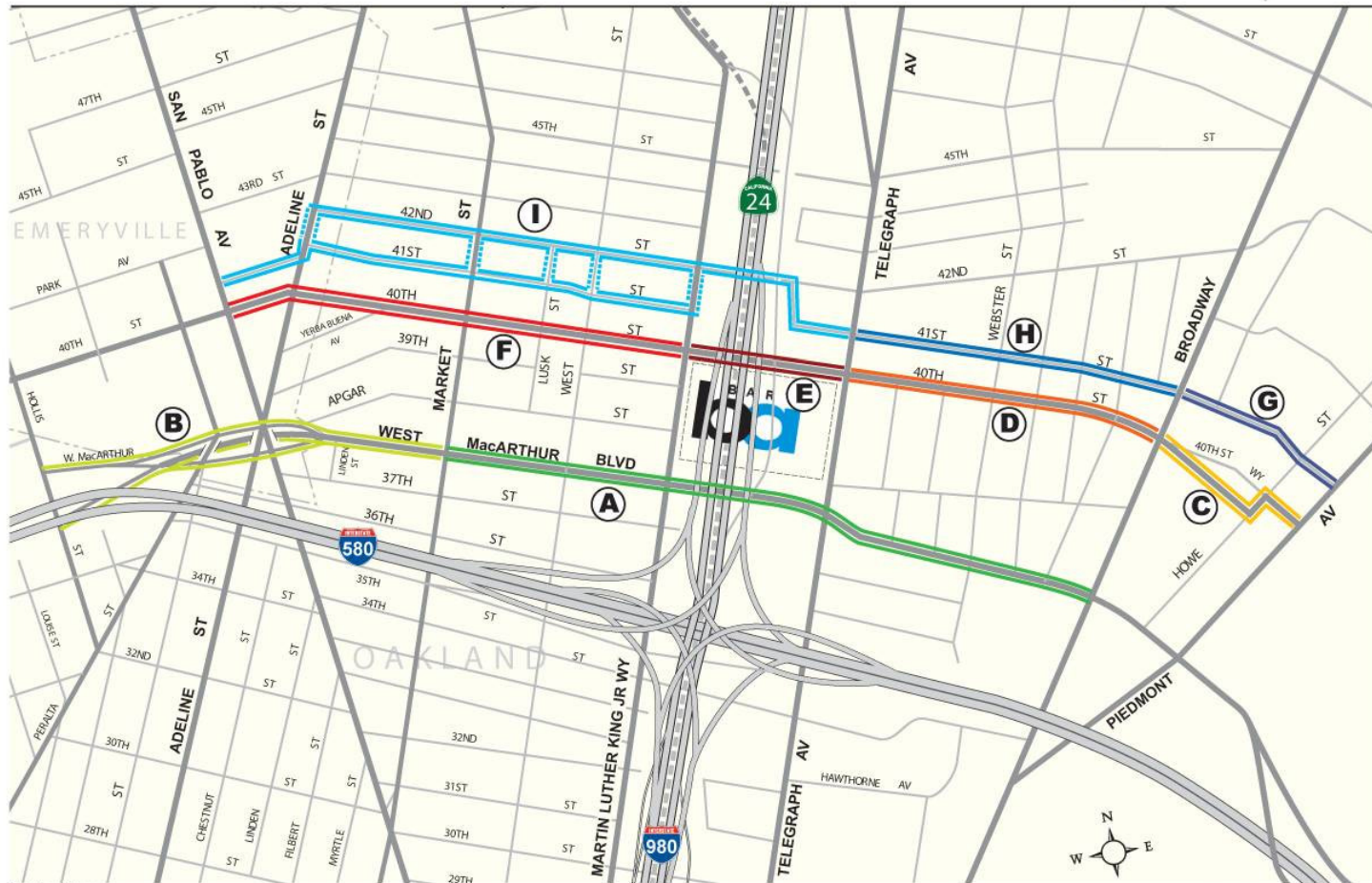
Implementing multimodal policies while maintaining automobile LOS thus leads to two common scenarios:

- *Existing Roadways and Land Uses:* Reallocate roadway width to include facilities for all modes...
... but create significant impacts on automobile congestion.
- *New Roadways and Land Uses:* Build roadways wide enough to include facilities for all modes...
... but create streetscapes that may not support walking, cycling, and transit.

MacArthur BART Bicycle Access Study

The example project...

DMJM HARRIS | AECOM



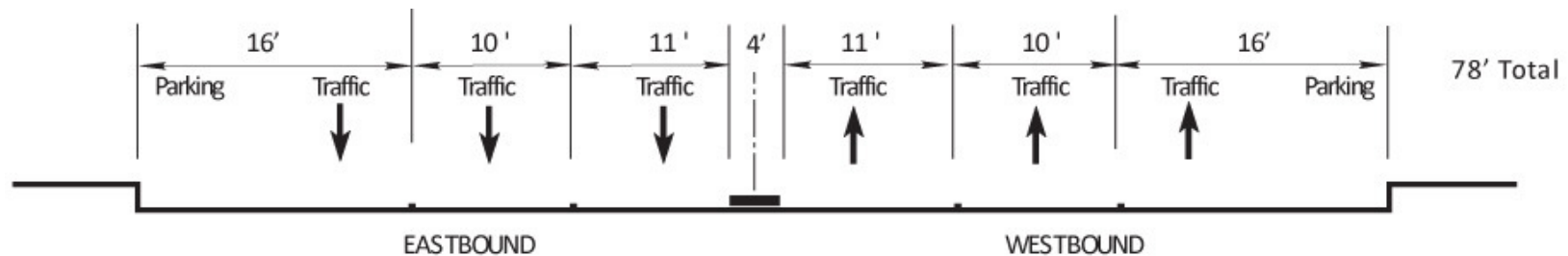
MacARTHUR BART STATION BICYCLE FEASIBILITY STUDY

Figure 13
POTENTIAL BICYCLE FACILITIES

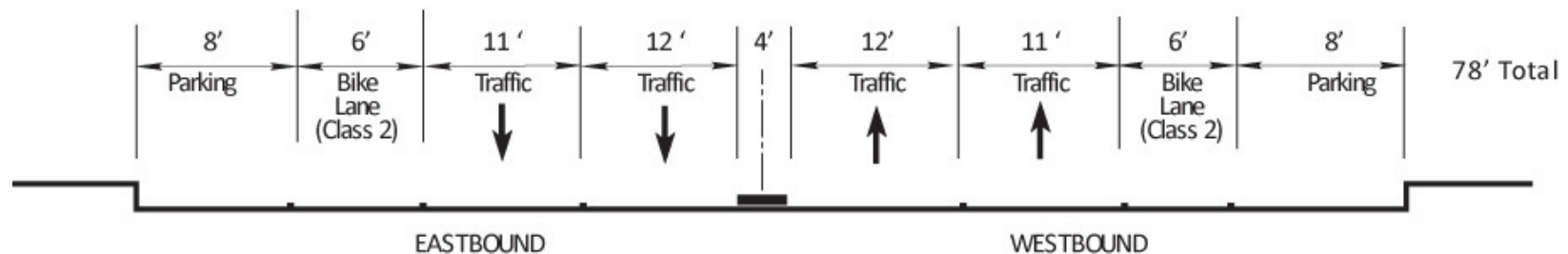
W MacArthur Blvd Cross-sections

...would reconfigure a six-lane street to improve bicycle access to a major transit station:

Existing



Proposed



Roadway Segment Volumes

But traffic is projected to double and triple by 2030...

Street	Endpoint	Endpoint	Direction	2007 Volume	2030 Volume	Increase
W MacArthur Blvd	Market St	West St	WB	546	1652	203%
			EB	593	930	57%
W MacArthur Blvd	West St	MLK Jr Wy	WB	522	1584	203%
			EB	447	1016	127%
W MacArthur Blvd	MLK Jr Wy	Telegraph Ave	WB	671	1723	157%
			EB	435	1195	175%
W MacArthur Blvd	Telegraph Ave	Webster St	WB	575	1751	205%
			EB	755	1011	34%
W MacArthur Blvd	Webster St	Broadway	WB	531	1757	231%
			EB	837	1136	36%
Average (over WB and EB for all segments)				5912	13755	133%

Level of Service (LOS) Analysis

...creating significant and unavoidable impacts at five of the six study intersections.

Intersection	Time	2007		2030		Significant Impact
		Existing	Project	Existing	Project	
W MacArthur Blvd / Market St	AM	B	B	F	F	X
	PM	B	C	E	F	
W MacArthur Blvd / West St	AM	B	B	E	D	X
	PM	B	B	C	E	
W MacArthur Blvd / MLK Jr Wy	AM	B	B	C	C	X
	PM	B	B	D	E	
W MacArthur Blvd / Telegraph Ave	AM	B	B	F	F	X
	PM	C	C	F	F	
W MacArthur Blvd / Webster St	AM	A	A	B	B	
	PM	B	B	B	D	
W MacArthur Blvd / Broadway	AM	E	C	F	F	X
	PM	D	D	F	F	

Key Factors

How does this happen?

1. Land use assumptions
(Association of Bay Area Governments)
2. Trip generation and distribution
(Alameda County Congestion Management Agency)
3. CEQA thresholds of significance
(City of Oakland)

Possible Approaches

How can such projects be implemented?

1. Redesign project to avoid significant impacts.
 - Limits connectivity and quality of bikeways.
2. Complete statement of overriding considerations.
 - Requires City Council to sanction congestion in an EIR.
3. Change the thresholds of significance.
 - Creates legal liability if applied inconsistently.
4. Eliminate study of the future year scenario.
 - Creates legal liability if applied inconsistently.
5. Modify the trip generation rates/distribution.
 - Involves regional agencies and state law.
6. Create statutory exemption (e.g. PRC 21080.19).
 - Requires modification to state law.